



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,012	12/20/2001	Benjamin J. Parker	1805 (15817)	1871

33272 7590 10/31/2007  
SPRINT COMMUNICATIONS COMPANY L.P.  
6391 SPRINT PARKWAY  
MAILSTOP: KSOPHT0101-Z2100  
OVERLAND PARK, KS 66251-2100

EXAMINER

SHINGLES, KRISTIE D

ART UNIT	PAPER NUMBER
----------	--------------

2141

MAIL DATE	DELIVERY MODE
-----------	---------------

10/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/034,012  
Filing Date: December 20, 2001  
Appellant(s): PARKER ET AL.

**MAILED**

**OCT 30 2007**

**Technology Center 2100**

MARK L. MOLLON  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed July 31, 2007 appealing from the Office action mailed March 21, 2007.

Art Unit: 2141

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2002/0114322	XU et al	8-2002
7,058,973	SULTAN	6-2006
6,993,012	LIU et al	1-2006

Art Unit: 2141

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

*Claims 1, 3-12, 14, 15 and 17 are pending.*

#### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-9, 12, 14-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Xu et al* (US Publication 2002/0114322) in view of *Sultan* (US 7,058,973).

a. Regarding claims 1, 12, and 15, *Xu et al* teach a method, central server, and server software for connecting at least two users to exchange network packets via an internetwork, each user being addressable within said internetwork at a respective global address, and wherein some users of said internetwork are connected to said internetwork via a respective network address translation (NAT) firewall, said method comprising the steps of:

- maintaining in a central server coupled to said internetwork a database of registered users, said database including respective addresses corresponding to said registered users (*page 4 paragraph 0045-0049—each client is registered with a proxy server, NAT server maintains a translation table of registered users' address data and directory server maintains mapping of each registered client with its respective proxy server*);

Art Unit: 2141

- receiving a call request from a calling user to establish a connection to exchange network packets with a called user, at least said called user being a registered user (*pages 4-5 paragraph 0051*);
- detecting whether a respective NAT firewall is in place between said called user and said internetwork (*page 2 paragraphs 0014 and 0017-0018, page 8 paragraph 0098*);
- if a respective NAT firewall is not in place between said called user and said internetwork, then: transmitting said called user's respective address to said calling user; and said calling user establishing a network session for said connection with said called user by transmitting to said called user's respective address (*page 2 paragraph 0017 and 0019—provision for no NAT firewall between first client and internetwork and establishment of session with second client using client's network address and port number*); and
- if a respective NAT firewall is in place between said called user and said internetwork (*page 2 paragraph 0018*), then: detecting whether a respective NAT firewall is in place between said calling user and said internetwork (*page 2 paragraph 0017, 0019 and 0021*); and if a respective NAT firewall is not in place between said calling user and said internetwork, then: transmitting said calling user's respective address to said called user; and said called user establishing a network session for said connection with said calling user by transmitting to said calling user's respective address (*page 2 paragraph 0017, 0019 and 0024-0025, page 5 paragraph 0056—provision for no NAT firewall between second client and internetwork and establishment of session with second client by obtaining the second client's network address and port number*).

*Xu et al* teach provisioning communication between users behind NAT firewalls and translating private addresses to public addresses for communication over the Internet (*pages 1-2 paragraphs 0013-0022, page 4 paragraphs 0045-0047, page 5 paragraphs 0061 and 0064*), yet fails to explicitly teach that the respective address of the first and second clients are “global addresses”. However, global/public addresses are inherent features of Network Address Translation (NAT)—which involves the conversion of private addresses locally used within a LAN into global addresses usable for communicating across the Internet with communication

Art Unit: 2141

requests issued from the LAN. *Sultan* discloses the use of global addresses in NAT (*col.2 line 35-col.3 line 11*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Xu et al* with *Sultan* for the purpose provisioning communication between users located behind NAT firewalls using the users' global address; because it allows for the establishment of communications between users of separate private network by implementing well-known network address translation functions without compromising the privacy of the network.

b. Regarding claims 3, 14, and 17, *Xu et al* with *Sultan* teach the method of claim 1, 12, and 15 further comprising the steps of: if a respective NAT firewall is in place both between said called user and said internetwork and between said calling user and said internetwork, then relaying through said central server all packets exchanged between said calling user and said called user during said connection (*Xu et al: pages 2-3 paragraphs 0021-0024, page 4 paragraph 0049, page 8 paragraph 0091*).

c. Regarding claim 4, *Xu et al* with *Sultan* teach the method of claims 1 further comprising the step of: receiving respective activation messages from each of said registered users at times when they become available for connecting to other users (*Xu et al: page 5 paragraphs 0055-0056*).

d. Referring to claim 5, *Xu et al* with *Sultan* teach the method of claim 4 wherein a presence of a NAT firewall is detected after receiving said respective activation messages, and wherein said database stores data indicating whether said respective NAT firewall is detected for each

Art Unit: 2141

respective active user or not (*Xu et al*: col.4 lines 0046-0048; *Sultan*: Figures 4-6, col.6 lines 38-55, col.13 line 61-col.15 line 2).

e. Regarding claim 6, *Xu et al* with *Sultan* teach the method of claim 5 wherein said central server transmits periodic messages to each respective active user for which a NAT firewall is detected in order to maintain an open network session (*Xu et al*: pages 4-5 paragraphs 0049-0061, page 7 paragraphs 0077-0082, page 8 paragraphs 0091-0092; *Sultan*: col.5 line 26-col.6 line 29).

f. Referring to claim 7, *Xu et al* with *Sultan* teach the method of claim 1 wherein said central server transmits periodic messages to each respective active user in order to maintain an open network session with each respective active user (*Xu et al*: pages 4-5 paragraphs 0049-0061, page 7 paragraphs 0077-0082, page 8 paragraphs 0091-0092; *Sultan*: col.5 line 26-col.6 line 29).

g. Regarding claim 8, *Xu et al* with *Sultan* teach the method of claim 1 wherein said respective NAT firewalls translate between a respective global address of a respective user and a respective local equipment address of said respective user, wherein each of user, and wherein said firewall detecting step is comprised of comparing said respective global address and said respective local equipment address, a NAT firewall being detected when said respective global address and said respective local equipment address do not match (*Xu et al*: pages 2 paragraphs 0018).

h. Referring to claim 9, *Xu et al* with *Sultan* teach the method of claim 1 wherein said respective global addresses each include an IP address and port number (*Xu et al*: page 5 paragraphs 0061-0062; *Sultan*: col.2 line 35-col.3 line 11).

Art Unit: 2141

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Xu et al* (US Publication 2002/0114322) in view of *Sultan* (US 7,058,973) in further view of *Liu et al* (US 6,993,012).

i. Regarding claim 10, *Xu et al* with *Sultan* teach the method of claim 1 as applied above, yet fail to further teach wherein said database further includes a respective telephone number associated with each registered user, and wherein said call request identifies said called user by a respective telephone number. However, *Liu et al* teach a directory server and database that maintains the telephone number and IP address associated with each user (*Figures 1 and 3, col. 7 lines 10-48*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Xu et al* and *Sultan* with *Liu et al* for the purpose maintaining the connection addresses (i.e. telephone numbers and IP address) of users communicating via Internet telephony for effecting communication with other users in the LAN or over the Internet.

j. Referring to claim 11, *Xu et al* and *Sultan* with *Liu et al* teach the method of claim 10 wherein a telephone call is established over a public switched telephone network between said calling user and said called user simultaneously with said connection for exchanging network packets (*page 7 lines 24-48*).

#### **(10) Response to Argument**

**Appellant argues—with respect to independent claims 1, 12 and 15—that the *Xu et al* reference fails to teach “wherein a direct connection bypassing the intermediary server is established by a called party in response to receiving the global address of the calling party (see Appeal Brief pages 7-8).**

In response to argument A, Examiner respectfully disagrees. The exchange of datagrams using direct addressing between the clients and bypassing the intermediary server is



Art Unit: 2141

neither stated or suggested by Appellant's claim language. Furthermore, this feature contradicts the invention as claimed, wherein the central server functions as an intermediary device between the calling user and called user and "maintains a database of registered users...receives a call request from a calling user to establish a connection to exchange network packets with a called user...detects whether a respective NAT firewall is in place...and transmits the called/calling user's global address" (independent claim 12) based on the detection. In light of the broadest interpretation given, Appellant's claim language does not preclude the teachings and embodiments (Figures 2a-2c) of *Xu et al* for exchanging data from a caller to a callee via a server since it is the server that performs the steps of detection to determine if a client is behind a firewall and then establishes connection with another client.

For the above reasons, it is believed that the rejections should be sustained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

Kristie D. Shingles

Conferees:

\*\*\*

W. C. Vaughn  
WILLIAM VAUGHN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

JOHN FOLLANSBEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100